AUTHOR INDEX

ADDAMIANO, A., Coiled crystals of gallium arsenide (E) 15 (1972) 84
AL-HILLI, A. A. and B. L. EVANS, The preparation and properties of transition metal dichalcogenide single crystals . 15 (1972) 93
ANDERSON, W. W., *see* BALCH 15 (1972) 204
AOKI, T., Growth of KCl whiskers on KCl crystals including the mother liquid 15 (1972) 163
ASADOV, YU. G., V. I. NASIROV and G. A. JABRAILOVA, Morphology of crystal growth at polymorphic transformations in KNO_3, $AgNO_3$, and NH_4NO_3 single crystals 15 (1972) 45

BALCH, J. W. and W. W. ANDERSON, Liquid phase epitaxy of gallium on zinc selenide 15 (1972) 204
BALCHIN, A. A., *see* RIMMINGTON 15 (1972) 51
BANSIGIR, K. G., *see* BHAGAVAN RAJU 15 (1972) 288
BAO, HA-QUAC, *see* HA-QUAC BAO 15 (1972) 291
BECK, A., K. PHILLIPS and A. J. PERRY, A horizontal Bridgman method for growing batches of oriented copper single crystals 15 (1972) 148
BELOUET, C., About the crystalline perfection of Nd-doped YAG single crystals 15 (1972) 188
BENSOUSSAN, M., A. BRENAC, J. THOMAS et P. TRONC, Elaboration de monocristaux de $GeSe_2$ 15 (1972) 79
BHAGAVAN RAJU, I. V. K. and K. G. BANSIGIR, On the mechanism of selective dissolution of NaCl cleavages . . 15 (1972) 288
BOHAC, P., *see* GÄUMANN 15 (1972) 304
BOTSARIS, G. D., *see* DENK 15 (1972) 51
BRENAC, A., *see* BENSOUSSAN 15 (1972) 79
BROWN, T. E., *see* SWORN 15 (1972) 195

CHALUPA, B., *see* KVAPIL, JIŘÍ 15 (1972) 126
CHASE, A. B. and J. A. OSMER, Habit modification of SiO_2 doped $Y_3Al_5O_{12}$, $Y_3Fe_5O_{12}$ and $Y_3Ga_5O_{12}$ garnets . . 15 (1972) 249
CHU, J. C., *see* LONGO 15 (1972) 107
CHU, T. L., J. M. JACKSON and R. K. SMELTZER, The growth of boron monophosphide crystals by chemical transport 15 (1972) 254
COCKAYNE, B., J. G. PLANT and A. W. VERE, Crucible-base cooling: an aid to Czochralski crystal growth . . . 15 (9172) 167
COLLONGUES, R., *see* COX 15 (1972) 301
COMER, J. J., Electron microscope study of Dauphiné microtwins formed in synthetic quartz 15 (1972) 179
COX, R. T., A. REVCOLEVSCHI and R. COLLONGUES, Growth of an O^{17} enriched Al_2O_3 crystal by a floating zone technique 15 (1972) 301
CROSSLEY, I. and M. B. SMALL, The application of numerical methods to simulate the liquid phase epitaxial growth of $Ga_{1-x}Al_xAs$ from an unstirred solution 15 (1972) 268
CROSSLEY, I. and M. B. SMALL, A determination of the undercooling necessary to initiate the epitaxial growth of GaAs from solution in Ga 15 (9172) 275

DAMEN, J., W. KAMMINGA, J. M. ROBERTSON, C. J. M. ROOYMANS and J. SCHULKES, A furnace for crystal growth at high gas pressures 15 (1972) 155
DAVIES, I. G. and A. HELLAWELL, Orientation relationships in the Al–Cu–Mg ternary eutectic system 15 (1972) 296
DENK, E. G. and G. D. BOTSARIS, Mechanism of contact nucleation 15 (1972) 51
DURAND, F. C. L., *see* HA-QUAC BAO 15 (1972) 291

ETTENBERG, M., *see* LOCKWOOD 15 (1972) 81
EVANS, B. L., *see* AL-HILLI 15 (1972) 93

FAHEY, R. E., *see* REED 15 (1972) 174
FLETCHER, R. C. and M. B. SMALL, The growth of crystals from an aqueous solution of high thermal stability . . 15 (1972) 159
FUKANO, Y. and C. M. WAYMAN, Condensation of evaporated Cr on NaCl 15 (1972) 32

GÄUMANN, A. und P. BOHAC, Zum auftreten hohler Kristalle . . . 15 (1972) 304
GERTNER, E. R., *see* LONGO . . . 15 (1972) 107
GROSS, U. and R. KERSTEN, Automatic crystal pulling with optical diameter control using a laser beam . . . 15 (1972) 85

HA-QUAC BAO et F. C. L. DURAND, Morphologie eutectique dans le système Cd–Pb–Sn . . . 15 (1972) 291
HARRIS, JR., J. S., *see* LONGO . . . 15 (1972) 107
HARTMAN, P., *see* LEDÉSERT . . . 15 (1972) 133
HEIMES, K. A., *see* VERHOEVEN . . . 15 (1972) 150
HELBIG, R., Über die Züchtung von grösseren reinen und dotierten ZnO-Kristallen der Gasphase . . . 15 (1972) 25
HELLAWELL, A., *see* DAVIES . . . 15 (1972) 296
HINKS, D. G., D. L. PRICE, J. M. ROWE and S. SUSMAN, Single crystal growth of sodium cyanide and potassium cyanide 15 (1972) 227

JABRAILOVA, G. A., *see* ASADOV . . . 15 (1972) 45
JACKSON, J. M., *see* CHU . . . 15 (1972) 254
JESZENSKY, L., *see* MALICSKÓ . . . 15 (1972) 243

KAMMINGA, W., *see* DAMEN . . . 15 (1972) 155
KATTAMIS, T. Z., *see* WHISLER . . . 15 (1972) 20
KERR, H. W. and M. H. LEWIS, Crystallographic relationships and morphologies of the Bi–Zn and Bi–Ag eutectic alloys 15 (1972) 117
KERSTEN, R., *see* GROSS . . . 15 (1972) 85
KIROV, G. K., On the diffusion method for growing crystals . . . 15 (1972) 102
KLAPPER, H., Röntgentopographische Untersuchungen der Defektstrukturen im Thioharnstoff . . . 15 (1972) 281
KÜPPERS, H., Die Züchtung grosser Einkristalle von Kalium- und Ammoniumoxalaten . . . 15 (1972) 89
KVAPIL, JIŘÍ, JOSEF KVAPIL, L. N. SEDLAKOVA, R. MICHALEC and B. CHALUPA, Growth and etching of KD_2PO_4 crystals in solutions containing acetate ions . . . 15 (1972) 126
KVAPIL, JOSEF, *see* KVAPIL, JIŘÍ . . . 15 (1972) 126

LEDÉSERT, M., P. HARTMAN et J. C. MONIER, Morphologie théorique et observée du composé 5 $Hg(CN)_2 \cdot 4$ tétrahydrofuranne; interprétation du développement de la forme {111} par adsorption de molécules $Hg(CN)_2$ . . . 15 (1972) 133
LEWIS, M. H., *see* KERR . . . 15 (1972) 117
LOCKWOOD, H. F. and M. ETTENBERG, Thin solution multiple layer epitaxy . . . 11 (1972) 81
LONGO, J. T., J. S. HARRIS, JR., E. R. GERTNER and J. C. CHU, Improved surface quality of solution grown GaAs and $Pb_{1-x}Sn_x$ Te epitaxial layers: a new technique . . . 15 (1972) 107

MALICSKÓ, L. and L. JESZENSKY, Investigations on inhomogeneous impurity distribution caused by growth centers . 15 (1972) 243
MATTHES, H., Growth of barium–lithium niobate single crystals by the Czochralski method . . . 15 (1972) 157
MEEHAN, J. P. and E. J. WILSON, Single crystal growth and characterization of $SrAlF_5$ and $Sr_{1-x}Eu_x^{2+}AlF_5$ . . . 15 (1972) 141
MESCHI, D. J., *see* MUNIR . . . 15 (1972) 263
MICHALEC, R., *see* KVAPIL, JIŘÍ . . . 15 (1972) 126
MONIER, J. C., *see* LEDÉSERT . . . 15 (1972) 133
MUNIR, Z. A., D. J. MESCHI and G. M. POUND, The partial pressures of Hg(g) and Se_n(g) in equilibrium with crystalline mercury selenide . . . 15 (1972) 263
MURRAY, J. J., J. B. TAYLOR and L. USNER, Halogen transport of molybdenum arsenides and other transition metal pnictides . . . 15 (1972) 231

NASIROV, V. I., *see* ASADOV . . . 15 (1972) 45
NASSAU, K., The growth of crystals from the boiling solution . . . 15 (1972) 171
NEDERMEYER, J., *see* PIETERS . . . 15 (1972) 299
NENOW, D., *see* PAVLOVSKA . . . 15 (1972) 242

OSMER, J. A., *see* CHASE . . . 15 (1972) 249

PAMPLIN, B. R., *see* POPOV . . . 15 (1972) 129
PAORICI, C. and G. ZUCCALLI, Forced-convection open-tube technique to grow GaSe thin platelets . . . 15 (1972) 240
PAVLOVSKA, A. et D. NENOW, Les surfaces non-singulières sur la forme d'équilibre du naphtalène (E) . . . 15 (1972) 242
PERRY, A. J., *see* BECK . . . 15 (1972) 148
PHILLIPS, K., *see* BECK . . . 15 (1972) 148
PIETERS, TH. W. J. and J. NEDERMEYER, Single crystal preparation of CuO . . . 15 (1972) 299
PLANT, J. G., *see* COCKAYNE . . . 15 (1972) 167
POPOV, V. P. and B. R. PAMPLIN, Epitaxial growth of solid solutions of $ZnSiP_2$ in Si . . . 15 (1972) 129
POUND, G. M., *see* MUNIR . . . 15 (1972) 263
PRASAD, R., On the growth characteristics in cadmium iodide crystals . . . 15 (1972) 259

PRICE, D. L., *see* HINKS 15 (1972) 227

RAJU, I. V. K. BHAGAVAN, *see* BHAGAVAN RAJU 15 (1972) 288
REED, T. B., R. E. FAHEY and A. J. STRAUSS, Sealed crucible technique for thermal analysis of volatile compounds up to 2500 °C: melting points of EuO, EuS, EuSe and EuTe 15 (1972) 174
REVCOLEVSCHI, A., *see* COX 15 (1972) 301
RIMMINGTON, H. P. B., A. A. BALCHIN and B. K. TANNER, Nearly perfect single crystals of layer compounds grown by iodine vapour-transport techniques 15 (1972) 51
ROBERTSON, J. M., *see* DAMEN 15 (1972) 155
ROOYMANS, C. J. M., *see* DAMEN 15 (1972) 155
ROWE, J. M., *see* HINKS 15 (1972) 227

SAURA, J. and J. L. REGOLINI 15 (1972) 304
SCHERER, G. and D. R. UHLMANN, Crystallization behavior of α-phenyl o-cresol 15 (1972) 1
SCHULKES, J., *see* DAMEN 15 (1972) 155
SEDLÁKOVÁ, L. N., *see* KVAPIL, JIŘÍ 15 (1972) 126
SHLICHTA, P. J., *see* WILCOX 15 (1972) 61
SMALL, M. B., *see* FLETCHER 15 (1972) 159
SMALL, M. B., *see* CROSSLEY 15 (1972) 268
SMALL, M. B., *see* CROSSLEY 15 (1972) 275
SMELTZER, R. K., *see* CHU 15 (1972) 254
STRAUSS, A. J., *see* REED 15 (1972) 174
SUNAGAWA, I. and K. TSUKAMOTO, Growth spirals on NaCl and KCl crystals grown from solution phase . . . 15 (1972) 73
SUSMAN, S., *see* HINKS 15 (1972) 227
SWORN, C. H. and T. E. BROWN, The growth of dislocation-free copper crystals 15 (1972) 195

TANNER, B. K., *see* RIMMINGTON 15 (1972) 51
TAYLOR, J. B., *see* MURRAY 15 (1972) 231
THOMAS, J., *see* BENSOUSSAN 15 (1972) 79
TONG, H. C. and C. M. WAYMAN, Epitaxial growth and microstructure of rf sputtered CuAu films 15 (1972) 211
TRONC, P., *see* BENSOUSSAN 15 (1972) 79
TSUKAMOTO, K., *see* SUNAGAWA 15 (1972) 73

UHLMANN, D. R., *see* SCHERER 15 (1972) 1
USNER, L., *see* MURRAY 15 (1972) 231

VAN DEN BOOMGAARD, J. and L. R. WOLFF, Growth and properties of the monovariant (Fe, Cr)–$(Cr, Fe)_7C_3$ eutectic system 15 (1972) 11
VERE, A. W., *see* COCKAYNE 15 (1972) 167
VERHOEVEN, J. D. and K. A. HEIMES, Transient composition changes in off-eutectic composite growth 15 (1972) 150
WADA, H., *see* YAMAGUCHI 15 (1972) 153
WAYMAN, C. M., *see* FUKANO 15 (1972) 32
WAYMAN, C. M., *see* TONG 15 (1972) 211
WHISLER, N. J. and T. Z. KATTAMIS, Dendritic coarsening during solidification 15 (1972) 20
WILCOX, W. R. and P. J. SHLICHTA, A survey of movies on crystal growth 15 (1972) 61
WILSON, E. J., *see* MEEHAN 15 (1972) 141
WOLFF, L. R., see VAN DEN BOOMGAARD 15 (1972) 11

YAMAGUCHI, S. and H. WADA, Greigite as seed for crystal growth of pyrrhotite 15 (1972) 153

ZUCCALLI, G., *see* PAORICI 15 (1972) 240

SUBJECT INDEX

Aluminum
— copper magnesium eutectic 296
— gallium arsenide 81
— oxide 301
Ammonium
— nitrate 45
— oxalates 89
Apparatus
— for melt growth
— — by Bridgman–Stockbarger method
— — — high gas pressure furnace for 155
— — — of barium ferrite 155
— — — of YIG 155
— — by Czochralski method
— — — automatic crystal pulling for 85
— — — of bismuth germanate 85
— — — of potassium chloride 85
— — by floating zone method
— — — of aluminum oxide 301
— — — with thermal imageing furnace 301
— for molten salts purification
— — by vacuum melting, gas treatment and filtration
— — — of potassium cyanide 227
— — — of sodium cyanide 227
— for solution growth
— — by flux method
— — — high gas pressure furnace for 155
— — — of YIG 155
— — by hydrothermal method
— — — of pyrrhotite 153
— — by low-temperature method
— — — growth from boiling solution 171
— — — of iodates 171
— for thin films
— — by liquid epitaxy
— — — of gallium arsenide 107
— — — of lead antimony telluride 107
— — by vapor phase epitaxy; direct evaporation and condensation
— — — of chromium on sodium chloride 32
— for miscellaneous purposes
— — melting point measurement by thermal analysis
— — — of europium chalcogenides and oxide 174
Arsenic telluride 304

Barium
— ferrite 155
— lithium niobate 157
Bismuth
— germanate 85
— silver alloys 117
— sulphide 304
— zinc alloys 117
Boron phosphide 254

Cadmium
— iodide 259
— tin eutectic 291
— lead eutectic 291
Cellular growth 153, 291
Chromium (on sodium chloride) 32
Compounds II–VI doped crystals, purity of 25
Constitutional supercooling 107, 141
Copper 148, 195
— oxide 299
— gold (II) alloy 211
Crystallographic relationships
— of bismuth eutectic alloys 117

Dendritic growth 20, 291

Europium
— chalcogenide; m.p. of 174
— oxide; m.p. of 174
Eutectic growth 11, 117, 150, 291, 296
Electrical transport properties
— of gallium arsenide on zinc selenide 204
Etching
— chemical 126, 288

Gallium
— arsenide 107, 204, 275
— selenide 240
— sulphide 79
Greigite 153
Growth
— spirals 73
— mechanism
— — of whiskers 163

Hafnium sulphide 51

Iodates 171
Iron–chromium carbides [(Fe,Cr)–$Cr,Fe)_7$–C_3] 11

KDP 126
Kinetics
– of coarsening 20
– of growth 1, 73, 107
– of nucleation 107

Lead tin telluride 107

Melt growth technique
– by Bridgman 141, 148, 155, 296
– by Czochralski 79, 85, 141, 157, 167, 188, 195
– by floating zone 11, 129, 301
– by Kyropoulos 85
– by liquid encapsulation 79
Mercury
– cyanide tetra hydro furanne 133
– iodide 307
– selenide 263
Molybdenum chalcogenides 93
Morphology of growth 1, 32, 45, 73, 93, 107, 117, 126, 133, 153, 167, 179, 188, 211, 240, 249, 296, 304
Movies for crystal growth 61

Niobates 157, 167
Nucleation, *see also* Kinetics of –
– breeding 57
– heterogeneous 32
– secondary 57

Optical spectra of strontium aluminum floride pure, and doped with europium (11) 141

Perfection of crystals 51, 73, 141, 159, 179, 188, 195, 211, 227, 240, 243, 281, 296, 307
p-phenyl o–cresol 1
Potassium
– chloride 73, 85, 163, 243
– cyanide 227
– deuterium phosphate 126
– nitrate 45
– oxalates 89
Pyrrhotite 153

Quartz 179
– doped garnets 249

Silver nitrate 45
Sodium
– chloride 73
– cyanide 227
Solid growth technique
– by Bridgman–Stockbarger
– — of barium ferrite 155
– — of YIG 155
– by polymorphic transformation
– — of ammonium, potassium and silver nitrates 45
– — of pyrrhotite 153
– by recrystallization
– — of cadmium iodide 259 259
Solution growth technique
– by flux
– — of YIG 155
— — of silicon doped garnets 249
— by gel
— — of calcite 102
— — of cuprous oxide 102
— — of fluorite 102
— — of wulfenite 102
— by hydrothermal growth
— — of pyrrhotite 153
— by low temperature
— — of ADP 159
— — of calcite 102
— — of cuprous oxide 102
— — of iodates 171
— — of KDP 126
— — of oxalates 89
— — of potassium chloride 243
— — of thiourea 281
Surface defects 32, 107
Strontium
— aluminum fluoride 141
— europium aluminum fluoride 141

Tantalates 167
Tantalum selenide 93
Tin chalcogenides 51
Titanium sulphide 51
Thin films
— by liquid phase epitaxy
— — of aluminum gallium arsenide 81
— — of gallium arsenide 81, 107, 204, 275
— — of lead tin telluride 107
— — theory of 268
— by vapor phase epitaxy
— — through chemical vapor deposition
— — — of boron phosphide 254
— — through rf sputtering
— — — of copper gold alloy 211
Tungsten
— selenide 93
— telluride 93

Vapor growth
— by chemical transport
— — of boron phosphide 254
— — of hafnium chalcogenides 51
— — of molybdenum arsenides 231
— — of molybdenum chalcogenides 93
— — of tantalum chalcogenides 93
— — of tin chalcogenides 51
— — of titanium chalcogenides 51
— — of tungsten chalcogenides 93
— — of zinc oxide 25
— — of zirconium chalcogenides 51
— by diffusion
— — of calcite 102
— — of cuprous chloride 102
— — of fluorite 102
— — of wulfenite 102
— by evaporation and condensation
— — of antimony sulphide 304
— — of arsenic telluride 304
— — of bismuth sulphide 304

— — of chromium (on NaCl) 32
— — of copper oxide 299
— — of mercury iodide 307
— — of mercury selenide 263
— by open tube forced convection
— — of gallium selenide
Vapor pressure
— determination of 263

Whisker growth 163, 304
Wurtzite 25

X-ray topography
— of IV–VI compounds 51
YAG 249
— neodymium doped 188
YGaG 249
YIG 155, 249

Zinc oxide 25
Zinc silicon phosphide 129
Zirconium sulphide 51